ABSTRACT

The present invention provides a method for determining the concentration of C-reactive protein in a sample using labeled phosphorylcholine.

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C-reactive protein is an acute phase protein reactive to extraneous stimuli with a high degree of sensitivity. By comparing the level of acute phase protein during bacterial infection, inflammation and post-surgery prognosis and an accurately assayed CRP level under normal conditions, symptoms can be diagnosed with more accuracy. However, serum CRP concentration at a normal level can not be accurately assayed by conventional methods due to the low sensitivity. In conventional methods, CRP levels are simply expressed as "negative", "positive" or "elevated". The subject invention relates to a novel method for assaying C-reactive protein (CRP) in a sample. More specifically, the invention relates to a novel method for determining a CRP concentration in a sample, using the specific binding between phosphorylcholine (PC) and CRP. Still more specifically, the invention relates to a novel method for determining a CRP concentration in a sample, comprising a sandwich assay process of assaying CRP in a sample as immobilized on an immobilizing phase by using labeled PC. In accordance with the subject invention, radioisotopes and fluorescent dyes (fluorescein, lanthanide and the like) may satisfactorily be used to label PC; more preferably fluorescent dyes, and most preferably lanthanide may be used as such fluorescent substances.